

Claims:

For the convenience of the Examiner, all pending claims of the present Application are shown below.

1. (Currently Amended) A fuel dispensing station comprising:

~~at least one~~ a fuel dispenser;

an ignition source detector operable to directly detect an ignition source in proximity to the fuel dispenser and, in response to detecting an unwanted ignition source, transmit a detection signal indicating the presence of the unwanted ignition source, wherein the ignition source detector is located on the fuel dispenser; and

a control unit which receives said detection signal and transmits a control signal to said fuel dispenser, wherein said fuel dispenser responds to said control signal by inhibiting the dispensing of fuel independently of other fuel dispensers.

2. (Previously Presented) The fuel dispensing station of claim 1, further comprising:

a fuel-management unit and at least one communicator, wherein said detection signal output by said ignition source detector is received by a fuel-management unit, the fuel-management unit outputting an information signal to the communicator to inform users that fuel dispensing has been suspended.

3. (Original) The fuel dispensing station of claim 2, wherein said fuel dispenser includes said control unit therein, and wherein said detection signal generated when said ignition source is detected is transmitted to said control unit via said fuel-management unit.

4. (Previously Presented) The fuel dispensing station of claim 1, wherein said ignition source detector is provided on a canopy over said fuel dispensing station.
5. (Previously Presented) The fuel dispensing station of claim 1, wherein said ignition source detector is provided on a dispenser housing of said fuel dispenser.
6. (Previously Presented) The fuel dispensing station of claim 1, wherein said ignition source detector is provided internally within said fuel dispenser.
7. (Previously Presented) The fuel dispensing station of claim 1, wherein said ignition source detector is provided on a fuel nozzle.
8. (Original) The fuel dispensing station of claim 1, wherein said unwanted ignition source comprises a spark, an open flame, or embers.
9. (Original) The fuel dispensing station of claim 1, wherein said fuel dispenser responds to said control signal by temporarily suspending fuel supply.
10. (Original) The fuel dispensing station of claim 1, wherein at least one communicator outputs signals by means of light, sound or both.
11. (Original) The fuel dispensing station of claim 1, wherein said source detector is an Infrared (IR) detector.

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12. (Original) The fuel dispensing station of claim 1, wherein said source detector is an electromagnetic spectrum detector.

13. (Currently Amended) A fuel dispensing station comprising:

~~at least one~~ a fuel dispenser;

an ignition source detector within said fuel dispenser and operable to directly detect an ignition source in proximity to the fuel dispenser and, in response to detecting an unwanted ignition source, transmit a detection signal indicating the unwanted ignition source;

a fuel-management unit for transmitting said detection signal detected by said source detector to at least one communicator; and

a control unit which receives said detection signal and generates a control signal for output to said fuel dispenser, wherein said fuel dispenser responds to said control signal by inhibiting the dispensing of fuel independently of other fuel dispensers.

14. (Currently Amended) A method for preventing unintended ignition in a fuel dispensing environment comprising the steps of:

directly detecting an ignition source within proximity to a fuel dispenser;

communicating the detection of an ignition source to at least one of a customer, an onsite personnel, and an offsite personnel; and

suspending the delivery of fuel by the fuel dispenser in reaction to the detection of the ignition source independently of other fuel dispensers.

15. (Previously Presented) The method of claim 14 wherein the detecting includes detecting at least one of a spark, an ember, or a flame.

16. (Original) The method of claim 14 wherein the communicating includes the use of light or sound.

17. (Original) The method of claim 14 wherein the suspending includes suspending operation of pumps in the dispensing environment.

18. (Original) The method of claim 14 further including the steps of:
detecting the absence of an ignition source; and
resuming the delivery of fuel in reaction to the detection of the absence of an ignition source.

19. (Previously Presented) The method of claim 14 further comprising the steps of:

detecting the absence of an ignition source;

communicating the absence of an ignition source to at least one of a customer, an onsite personnel, and an offsite personnel; and

allowing a resumption of fuel dispensing if requested by at least one of a customer, an onsite personnel, or an offsite personnel.

20. (Original) The method of claim 19 further comprising the step of allowing resumption of fuel dispensing only upon request by onsite personnel.

21. (Original) The method of claim 14 further comprising the steps of:
generating a detection signal upon detecting an ignition source;
transmitting the detection signal to a control unit;
generating a control signal in reaction to receipt of the detection signal at the control unit; and
transmitting the control signal to at least one of a communicator and a fuel delivery system.

22. (Currently Amended) A system for dispensing fuel comprising:

an ignition source detector operable to directly detect an ignition source in proximity to a fuel dispenser and transmit a detection signal upon detecting at least one of a spark, an ember and a flame, wherein the ignition source detector is located on the fuel dispenser;

a the fuel dispenser for delivery of fuel into containers or vehicles;

a communicator for communicating with either sound or light to at least one of a customer in the vicinity of the fuel dispenser, an onsite personnel, and an offsite personnel; and

a control unit operably connected with the ignition source detector, fuel dispenser, and communicator and adapted to receive the detection signal transmitted by the ignition source detector and in reaction to the detection signal transmit at least one control signal;

wherein the fuel dispenser receives the control signal and suspends the delivery of fuel independently of other fuel dispensers and the communicator receives the control signal and communicates the detection of an ignition source.

23. (Previously Presented) The fuel dispensing station of claim 1, the controller unit further operable to detect an absence of an ignition source and, in response to the absence, automatically transmit a command to the at least one fuel dispenser to resume the delivery of fuel.

24. (Previously Presented) The fuel dispensing station of claim 13, wherein said unwanted ignition source comprises a spark, an open flame, or embers.

25. (Previously Presented) The fuel dispensing station of claim 13, wherein said source detector is an Infrared (IR) detector.

26. (Previously Presented) The fuel dispensing station of claim 13, the controller unit further operable to detect an absence of an ignition source and, in response to the absence, automatically transmit a command to the at least one fuel dispenser to resume the delivery of fuel.

27. (New) A fuel dispensing station comprising:

at least one fuel dispenser;

an ignition source detector operable to directly detect a spark or an ember and, in response to detecting an unwanted ignition source, transmit a detection signal indicating the presence of the unwanted ignition source; and

a control unit which receives said detection signal and transmits a control signal to said fuel dispenser, wherein said fuel dispenser responds to said control signal by inhibiting the dispensing of fuel.

28. (New) The fuel dispensing station of claim 1, further comprising:

a fuel-management unit and at least one communicator, wherein said detection signal output by said ignition source detector is received by a fuel-management unit, the fuel-management unit outputting an information signal to the communicator to inform users that fuel dispensing has been suspended.

29. (New) The fuel dispensing station of claim 2, wherein said fuel dispenser includes said control unit therein, and wherein said detection signal is transmitted to said control unit via said fuel-management unit.

30. (New) The fuel dispensing station of claim 1, wherein said ignition source detector is provided on a canopy over said fuel dispensing station.

31. (New) The fuel dispensing station of claim 1, wherein said ignition source detector is provided on a dispenser housing of said fuel dispenser.

32. (New) The fuel dispensing station of claim 1, wherein said ignition source detector is provided internally within said fuel dispenser.

33. (New) The fuel dispensing station of claim 1, wherein said ignition source detector is provided on a fuel nozzle.

34. (New) The fuel dispensing station of claim 1, wherein said fuel dispenser responds to said control signal by temporarily suspending fuel supply.

35. (New) The fuel dispensing station of claim 1, wherein at least one communicator outputs signals by means of light, sound or both.

36. (New) The fuel dispensing station of claim 1, wherein said source detector is an electromagnetic spectrum detector.